

**Quad Chart  
– Format**

**BAA Number:** *(Number of the BAA Announcement)*  
**Mission Area:** *(Title of Mission Area from BAA Package)*  
**Requirement Number:** *(Only 1 Per Chart)/(Document Identifier) (See paragraph 3.1.2.3)*  
**Proposal Title:** *(Brief/short Title to describe offeror’s proposed effort)*

Offeror Name  
Date

**Photograph or artist’s concept** of the project end-item.  
Ideally, this will convey the main idea of the final capability/use of the prototype.  
It should further give an idea of the size and weight of the end item.

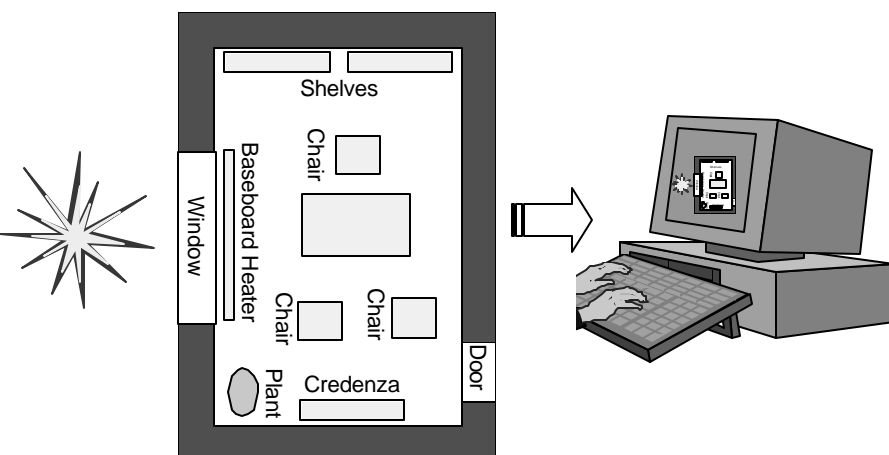
**Operational Capability:**  
Describe how the system would provide new or enhanced operational capability to user agencies.  
Describe system specifications to be met.  
If known, list specific agencies that have expressed interest in this approach.

**Proposed Technical Approach:**  
Specifically, how will the problem be approached.  
Describe tasks to be performed.  
Describe any actions done to date.  
Describe any related on-going effort by the offeror.  
Describe the technology involved and how it will be used to solve the problem.

**Rough Order of Magnitude Cost and Schedule:**  
Provide any milestone decision points that will be required. Describe period of performance and total costs. If there are phases, provide funding per phase.  
**Deliverables:**  
Include all hardware and the following data deliverables: monthly status report, final report, test plans, test reports, specifications, computer program end items, user’s manual, drawings, transition plan, etc.  
**Corporate Information:**  
You must include Offeror Name, POC full name, address, phone numbers and email.

**SAMPLE**

## **Blast Distribution Modeling for Buildings**



## **Operational Capability to be Provided:**

- Compile database of blast debris generated from actual events and field testing.
- Empirical model that will predict size, mass, velocity and distribution of debris produced inside buildings by bombs.
  - Model will consider windows, walls, utility systems, office equipment, and furnishings as sources.
  - Model will use charge weight, location, building characteristics, and equipment as input data
- User friendly windows version of model will add credibility to force protection vulnerability assessments, show benefit of upgrades to facilities.

## **Proposed Technical Approach: New effort**

### **Task 1:**

- **Gather data** from actual blast events and tests. (Embassy Bombings, TSWG-sponsored wall studies, British, Israeli tests).
- **Evaluate and tabulate data** into categories with like characteristics and distribution patterns as a function of charge weight, location, building characteristics, and source of debris.

### **Task 2:**

- **Develop debris distribution model(s)** that replicate debris data showing size, mass, velocity, & distribution.
- **Validate model** against new tests and other data sources.
- **Develop user friendly Blast Debris Model** software and manual to run in Windows 98/NT environment.

## **ROM Cost & Schedule:**

- Task 1 period of performance is 4 months; Task 2 begins after the completion of Task 1 for a period of 8 months.
  - Total Period of Performance is 12 months
- Task 1 - ROM Cost of \$20,000
- Task 2 - ROM Cost of \$100,000; \$20,000 for Govt Validation
  - Total Cost is \$140,000

## **Deliverables**

- **Technical Report** describing debris data sources & compiled results
- **Technical Report** describing model and techniques to replicate compiled data and blast debris response scenarios
- **Software model** for rapid distribution and use by force protection teams
- **User Manuals; Database Description; Computer Program End Item; Progress/Status Reports; Final Report, Video; Transition Plan**

## **Corporate Information:**

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**SAMPLE**